

Nutrition
Requirements and
Dangers During
Lactation

Developmental Nutrition

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There has been much misinformation and lack of information in the past concerning what should and should not be consumed during lactation. The goal of this article is to clarify what a nursing mother can do to ensure her child receives the best possible nutrition during the early months of life while breast-feeding. This will include what she should ensure is contained in her diet as well as what she should ensure is excluded or limited. Exclusive breast-feeding is the food source of choice for the infant during the first 4-6 months of life according to the American Academy of Pediatrics and the American Dietetic Association.¹ The advantages of breast-feeding include:

1. Breast milk is nutritionally superior to any alternative.
2. Breast milk is bacteriologically safe and always fresh.
3. Breast milk contains a variety of anti-infectious factors and immune cells.
4. Breast milk is the least allergenic of any infant food.
5. Breast-fed babies are least likely to be overfed.
6. Breast-feeding promotes good jaw and tooth development.
7. Breast-feeding generally costs less than the commercial infant formulas currently available.
8. Breast-feeding automatically promotes close mother-child contact.
9. Breast-feeding is generally more convenient once the process is established.²

The composition of the breast milk will vary depending on what the mother consumes. Some nutrients vary based on maternal consumption while others remain relatively stable even if maternal intake is low. Some of the nutrients that are most

¹ Mahan L., Escott-Stump S.: Krause's Food, Nutrition and Diet Therapy; W.B. Saunders; 2000: 185.

² Ibid; 185.

susceptible to fluctuations in breast milk content are: fatty acids, selenium, iodine and some water-soluble B vitamins.³ A list of the RDA for vitamins and minerals during lactation follows:

Vitamin A	1300mcg
Vitamin D	5mcg
Vitamin E	12mg
Vitamin K	65mcg
Vitamin C	95mg
Thiamin	1.5mg
Riboflavin	1.6mg
Niacin	17mg
Vitamin B6	2mcg
Folate	500mcg
Vitamin B12	2.8mcg
Biotin	35mcg
Pantothenic Acid	7mg
Choline	550mg
Calcium	1000mg if older than 18 1300mg if 18 or younger
Phosphorus	700mg if older than 18 1250mg if 18 or younger
Magnesium	310mg if older than 18 360mg if 18 or younger
Fluoride	3mg
Iron	15mg
Zinc	19mg
Iodine	200mcg
Selenium	75mcg ⁴

Total caloric intake need only increase by 500kcal per day. If the woman was obese before pregnancy or had excessive weight gain during pregnancy then the kcal need will be less than this amount.⁵ The diet of the nursing mother should be plentiful in raw foods to maximize available nutrition. There are many herbs that can be utilized to increase the effectiveness of breast-feeding. Nettle leaf contains iron and has a tonic

³ Ibid;187.

⁴ Ibid;174

effect.⁶ It should be noted that there are some herbs that might want to be avoided since they can decrease milk supply. These are: black walnut, sage and yarrow.⁷ Recent studies have revealed that when mothers consume garlic their child had an increased desire for milk and nursed longer.⁸

Unfortunately there is also an easy transference of drugs from the mother to the baby through breast milk. The drugs that have been found include:

1. Acetaminophen(Tylenol)
2. Alcohol
3. Amphetamines
4. Antibiotics
5. Antihistamines
6. Aspirin
7. Barbiturates
8. Caffeine
9. Cimetidine(Tagamet)
10. Cocaine
11. Decongestants
12. Diazepam(Valium)
13. Ergotamine
14. Chlorodiazepoxide(Librium)
15. Marijuana
16. Nicotine
17. Opiates(codeine)
18. Meperidine(Demerol)
19. Morphine

These drugs can cause diarrhea, rapid heart rate, poor sleeping, crying, convulsions, vomiting, restlessness and irritability and can even lead to addiction after accumulating in the infants body.⁹

⁵ Ibid;187

⁶ Balch J., Balch P.: Prescription for Nutritional Healing; Avery;1997:166.

⁷ Ibid; 166.

⁸ Ibid; 166.

Protein requirements are 15 grams of protein per day during the first 6 months of lactation and 12 grams during the second 6 months.¹⁰ Of special concern is the case of the vegetarian mother who is breast-feeding. Particular attention needs to be focused on the mother's proper intake of iron, calcium, vitamin B12 and vitamin D.¹¹ There are certain foods that a nursing mother might want to avoid to eliminate the possibility of pesticide poisoning in the infant. A study done on 32 nursing mothers in Beirut discovered a correlation between consumption of either/or high fat meat, tuna fish and pesticide levels in milk. Poultry and vegetable oils were also studied and showed no correlation.¹² On a humanitarian level there is a group of individuals that encounter yet a further complication. These are women who are at or below the poverty level. According to a study conducted in Canada, these women were more likely to have less than adequate energy intake and sub-RDA intake of calcium, folate, iron, thiamin, vitamin A and zinc.¹³ A further danger for a limited segment of the population is the possible transmission of the human immunodeficiency virus type 1 through breast-feeding.¹⁴ Some of the essential components that the human milk provides include: digestive enzymes, immunoglobulin A (IgA), taurine, nucleotides and long-chain polyunsaturated fatty acids. This compensates for the infants' inability to initially produce these substances.¹⁵

⁹ Ibid; 166

¹⁰ Mahan L., Escott-Stump S.; Krause's Food, Nutrition and Diet Therapy, W.B. Saunders; 2000; 187.

¹¹ Sanders T; Good Nutrition for The Vegetarian Mother; Modern Midwife; 1994 Apr;4(4):23-6

¹² Dagher SM, Talhouk RS, Nasrallah SS, Tannous RI, Mrouch SM; Relationship of Dietary Intake to DDE Residues in Breast Milk of Nursing Mothers in Beirut; Food Audit Contamination;1999; Jul;16(7):307-12.

¹³ Doran L, Evers S; Energy and Nutrient Inadequacies in the Diets of Low-Income Women Who Breast-Feed.; Journal of the American Dietetic Association; 1997 November; 97(11):1283-87.

¹⁴ Van de Perre P; Transmission of Human Immunodeficiency Virus Type 1 Through Breast Feeding: How Can It Be Prevented?; Journal of Infectious Diseases; 1999 May;179 Suppl 3:S405-7.

¹⁵ Hamosh M; Breastfeeding: Unraveling the Mysteries of Mother's Milk; Medscape Womens Health 1996 Sep;1(9):4.

There are many areas for the breast-feeding mother to focus. The ultimate incentive is a happy and healthy child. The great news is this is quantifiable. According to study that demonstrated a 4.6 point higher mean score on children's intelligence in breast-fed children.¹⁶

¹⁶ Johnson DL, Swank PR, Howie VM, Baldwin CD, Owen M.; Breast Feeding and Children's Intelligence: Psychol Rep 1996 Dec;79(3 PT 2);1179-85.